

## ABSTRACT OF THE DISCLOSURE

The present invention relates to a voice recognition system.

5     The prior voice recognition system has had difficulties in embodying an ASIC. And it is therefore difficult to be applied to actual life because it has to handle software only or construct a complex system using DSP.

10     The present invention presents a voice recognition system that is insensitive to external noise and applicable to actual life by comprising an A/D converter that converts analog voice signals to digital signals; an FIR filtering section that employs powers-of-two conversion to filter the digital signals  
15     converted at the A/D converter into numbers of channels; a characteristic extraction section that immediately extracts voice characteristics having strong noise-resistance from the output signals of the  
20     FIR filtering section without using additional memories; a word boundary detection section that discriminates the information of the start-point and the end-point of voice signal on the basis of the characteristics extracted by the characteristic  
25     extraction section; and a normalization/recognition

section that codes and outputs the final result by carrying out a timing normalization and a classifying process using a radial basis function(RBF) neural network on the basis of the voice characteristics provided by the characteristic extraction section and the information of the start-point and the end-point of voice signal from the word boundary detection section.